



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

**D2580-1**

**Job Sheet 175387**



**Part No:** D2580-1

**Job Qty:** 8 ea

**Part Name:** 205 Bent Tube



**Part Weight:** 0 lbs

**Status:** Scheduled

**Priority:** Medium

**Job Created:** 4/4/18

**Job Tracking No:**

**Due Date:** 4/20/18

**Created By:** Michelle Gagnon-Donovan

**Type:** Stock

**Description:**

**Note:** DWG D2580 REV h SHEETS 1,2,3,8 IPP B 01.11.08 Revised Step 9, 10, 12, and 13 SM IPP Rev:C 10.12.01 as per DEO D1 DD verf:ec

**Ship Via:**

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |           | Sign-off       |
|-------|--------------------|-------|------------|----------|-----------|---------|-----------------------|-----------|----------------|
|       |                    |       |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time |                |
| 90    | Start up Operation | 8 Ea  | 4/19/18    | 4/19/18  | 0.00      | 0.00    | Start Up Skid tubes   |           | m66            |
| 100   | Skid tubes         | 8 pcs | 4/19/18    | 4/19/18  | 0.00      | 7.41    | Skid tubes            |           | DD 1.4         |
| 101   | QC                 | 8 pcs | 4/19/18    | 4/19/18  | 0.00      | 0.00    | QC5                   |           | BE             |
| 110   | HandFinish         | 8 pcs | 4/19/18    | 4/19/18  | 0.00      | 3.33    | HandFinish1           |           | SA-18-04-18    |
| 120   | QC                 | 8 pcs | 4/19/18    | 4/19/18  | 0.00      | 0.00    | QC7                   |           | BE             |
| 125   | Skid tubes         | 8 pcs | 4/20/18    | 4/20/18  | 0.00      | 7.41    | Skid tubes            |           | DD             |
| 130   | QC                 | 8 pcs | 4/20/18    | 4/20/18  | 0.00      | 0.00    | QC5                   |           | BE             |
| 140   | Packaging          | 8 pcs | 4/20/18    | 4/20/18  | 0.00      | 0.00    | Packaging3            |           | DD m66         |
| 150   | QC21-SA            | 8 Ea  | 4/20/18    | 4/20/18  | 0.00      | 0.00    | QC21                  |           | 21 APR 26 2018 |

Part Op 100 - ~~1~~ Inspect mat'l D2500-1-190 for damage, ~~2~~ Drill pilot holes using drill jig DT 8149 A-BC-D 3-Open holes to 0.508"  
Descriptions: as per Dwg D2580 4-Deburr holes per QSI002 section 4.2.3 and blow out all chips from inside of tube 5- Test fit inspection saddles on FWD & AFT saddle holes using DT9916.

125 - 1- Bond web in place per QSI 015. A/R Sikaflex-291 batch: 138 787 Sikaflex expire date: 208/1260 Start time and date: \_\_\_\_\_ bond for 12hrs

140 - LOCATION : LG002

### Job BOM

| Part / Item | Component Name           | Quantity    | Operation             | Container   |
|-------------|--------------------------|-------------|-----------------------|-------------|
| D2500-1-190 | Ext'n - 'I' Beam Tube 4" | 8 Ea (1 ea) | 90-Start up Operation | 5027162     |
| D2596       | Web, 205 Skid tube       | 8 Ea (1 ea) | 125-Skid tubes        | 5058284 x 2 |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | D2500-1-190    | 8        | 80        | 0         |
| 125-Skid tubes        | D2596          | 8        | 6         | 0         |

### Part Specifications

Specifications could not be found.

Plex 4/4/18 8:30 AM Dart.Gagnon.Michelle

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Container No: S061525



Part: D2580-1

Job No: 175387

Serial No/Batch: S061525

Revision: H

Inspector:

Date: 04/16/18



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SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 175387

APR 04 2018

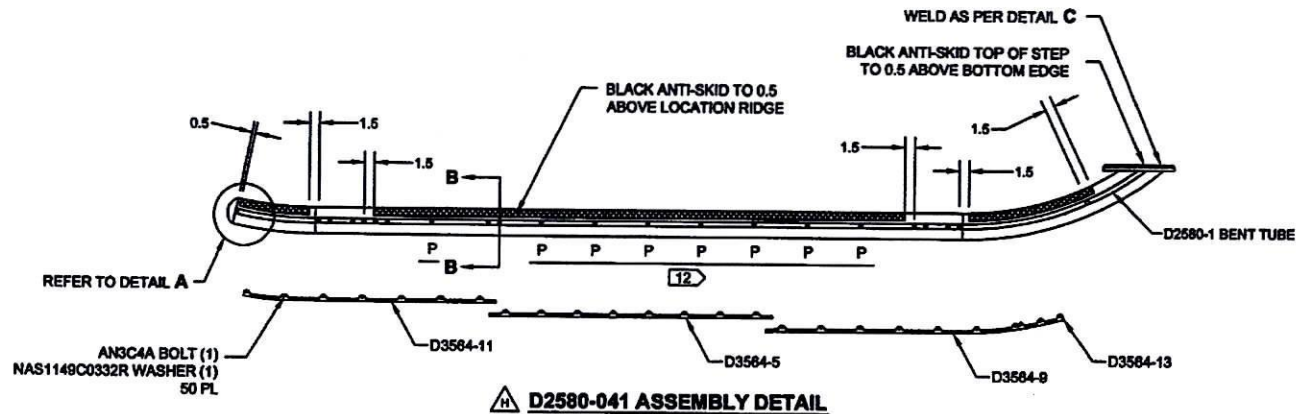
## GENERAL NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION PER DART QSI 005 4.1 PRIOR TO INSERTING D2586 WEB  
POWDER COAT (-041/-047/-049) GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
POWDER COAT (-045) GREEN SANDTEX (REF 4.3.5.6) PER DART QSI 005 4.3  
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4.
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: D2580-041 = 33.7 lbs  
D2580-045 = 33.7 lbs  
D2580-047 = 45.1 lbs  
D2580-049 = 32.0 lbs
- 8) WELDING PER DART QSI 004.
- 9) INSERT D2586 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
- 10) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
- 11) USE DART DRILL TEMPLATE DT8217 & DT8837 ONLY FOR D2580-041/-045 TO LOCATE AND DRILL 20.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTIONS B-B AND F-F (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND NAS1149C0332R WASHERS WITH SIKAFLEX-241/291.
- 12) INSERT D2584-1 PLUG C/W D2584-3 O-RING IN HOLES MARKED "P" (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES FOR D2580-041/-045 AND 8 PLACES FOR D2580-047/-049)
- 13) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2865 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

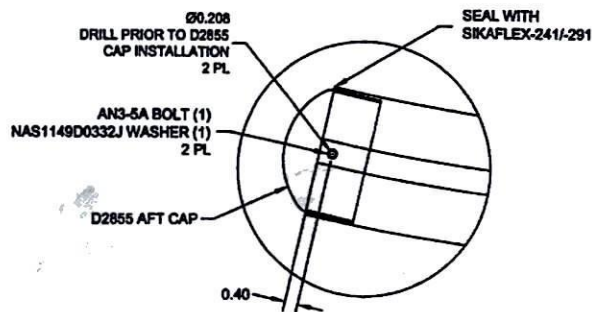
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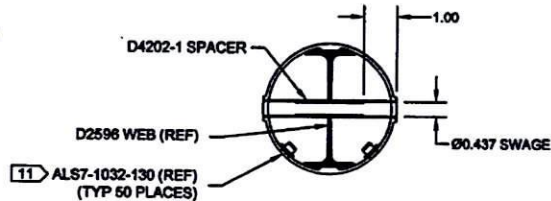
|            |                                                                                                                                                           |                                                                                                                                                                                                                   |              |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| H          | SHEET : PL DELETE D3586-1/5-13 GASKETS, WEIGHTS UPDATED ACCORDINGLY. SHEETS 2 & 4 PICTORIAL UPDATE FOR REMOVAL OF GASKETS                                 | SAD                                                                                                                                                                                                               | 17.06.09     |
| G          | ADDED -048, -047 WEIGHT UPDATED PER DSI 9998                                                                                                              | AJS                                                                                                                                                                                                               | 14.04.09     |
| F          | INCORPORATE DEO D2580-E-1 PER PAR12-218                                                                                                                   | DC                                                                                                                                                                                                                | 13.06.20     |
| E          | ADD D2580-047 (ZN C4-7) AND D2580-7 (ZN B3-8); INCLUDED DEO D2580-D-1; REFORMATTED DRAWING TO CURRENT STANDARDS; DT8217 & DT8837 WAS T02577-205 (ZN C4-1) | RF                                                                                                                                                                                                                | 11.06.21     |
| D          | CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/ 9183                                                                                               | PH                                                                                                                                                                                                                | 07.04.06     |
| C          | REDRAWN, INCLUDED DEO 9094/ 9097                                                                                                                          | CP                                                                                                                                                                                                                | 06.08.26     |
| B          | AS MANUFACTURED                                                                                                                                           | DS                                                                                                                                                                                                                | 06.12.02     |
| A          | NEW ISSUE                                                                                                                                                 | DS                                                                                                                                                                                                                | 06.06.16     |
| REV.       | DESCRIPTION                                                                                                                                               | BY                                                                                                                                                                                                                | DATE         |
| DESIGN     | DS                                                                                                                                                        | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                          |              |
| DRAWN      | SAD                                                                                                                                                       |                                                                                                                                                                                                                   |              |
| CHECKED    | <i>[Signature]</i>                                                                                                                                        | DRAWING NO.                                                                                                                                                                                                       | REV. H       |
| MFG. APPR. | <i>[Signature]</i>                                                                                                                                        | D2580                                                                                                                                                                                                             | SHEET 1 OF 9 |
| APPROVED   | <i>[Signature]</i>                                                                                                                                        | TITLE                                                                                                                                                                                                             | SCALE        |
| DE APPR.   | <i>[Signature]</i>                                                                                                                                        | 205 SKIDTUBE ASSEMBLY                                                                                                                                                                                             | NTS          |
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**DETAIL A**  
SCALE 5X

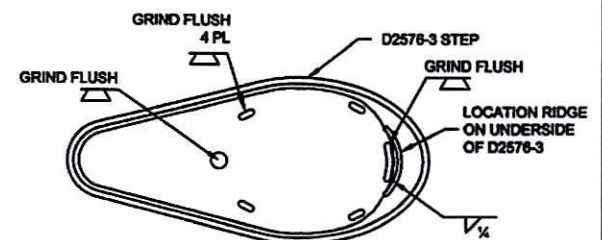


**SECTION B-B**  
SCALE 5X



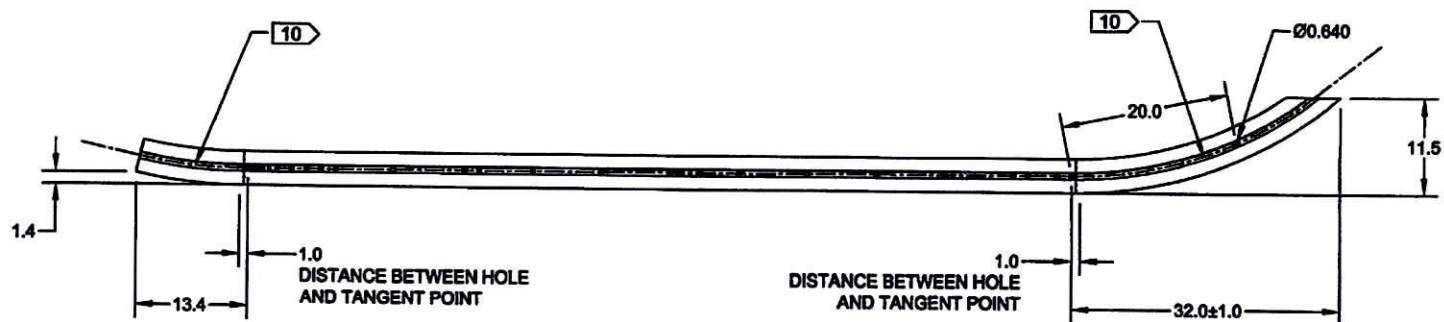
AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:  
1. INSERT D4202-1 SPACER (20 PLACES)  
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002  
3. TRIM / GRIND FLUSH PER QSI 002

**DETAIL C**  
SCALE 5X



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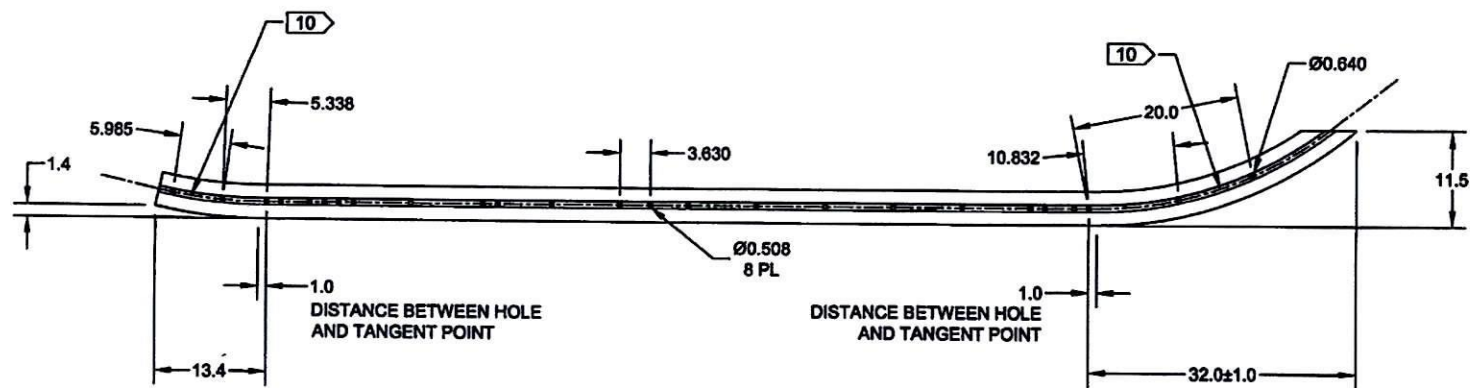
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| MFG. APPR. | <i>[Signature]</i> | D2580                                                                                                                                                                                                                                                                            | SHEET 2 OF 9 |
| APPROVED   | <i>[Signature]</i> | TITLE                                                                                                                                                                                                                                                                            | SCALE        |
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**D2580-1 BENT TUBE**  
(MAKE FROM D2580-101 TUBE)

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| MFG. APPR. | <i>[Signature]</i> | TITLE<br>205 SKIDTUBE ASSEMBLY                                                                                                                                                                                                                                           | SCALE<br>NTS           |
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**D2580-7 BENT TUBE**  
(MAKE FROM D2580-101 TUBE)

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|            |                    |                                                                                                                                                                                                                                                                               |              |
|------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
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| MFG. APPR. | <i>[Signature]</i> | D2580                                                                                                                                                                                                                                                                         | SHEET 8 OF 9 |
| APPROVED   | <i>[Signature]</i> | TITLE                                                                                                                                                                                                                                                                         | SCALE        |
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